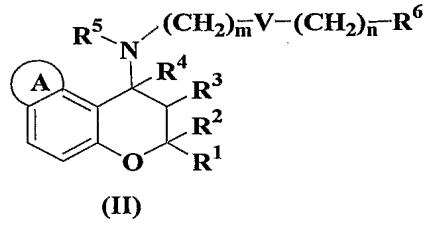
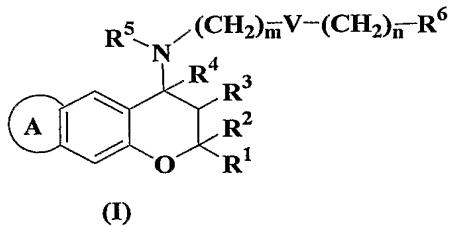


CLAIMS

1. A benzopyran derivative of formula (I) or (II), or pharmaceutically acceptable salt thereof



wherein

R¹ and R² are independently of each other hydrogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom) or hydroxy group), or C₆₋₁₄ aryl group (wherein the aryl group may be arbitrarily substituted with halogen atom, hydroxy group, nitro group, cyano group, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom) or hydroxy group) or C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom));

R³ is hydroxy group or C₁₋₆ alkylcarbonyloxy group, or R³ forms a bond together with R⁴;

R⁴ is hydrogen atom, or R⁴ forms a bond together with R³;

m is an integer of 0 to 4;

n is an integer of 0 to 4;

V is a single bond, CR⁷R⁸ wherein R⁷ is

- C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, hydroxy group, C₁₋₆ alkoxy group (wherein C₁₋₆ alkoxy group may be arbitrarily substituted with halogen atom), C₆₋₁₄ aryl group, C₂₋₉ heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R¹⁰) wherein R¹⁰ is halogen atom; hydroxy group; C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, hydroxy group or C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom)); C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom); nitro group; cyano group; formyl group; formamide group; sulfonylamino group; sulfonyl group; amino group; C₁₋₆ alkylamino group; di-C₁₋₆ alkylamino group; C₁₋₆

alkylcarbonylamino group; C₁₋₆ alkylsulfonylamino group; aminocarbonyl group; C₁₋₆ alkylaminocarbonyl group; di-C₁₋₆ alkylaminocarbonyl group; C₁₋₆ alkylcarbonyl group; C₁₋₆ alkoxy carbonyl group; aminosulfonyl group; C₁₋₆ alkylsulfonyl group; carboxy group or C₆₋₁₄ arylcarbonyl group, and when a plurality of R¹⁰ are present, they may be identical or different from each other); C₁₋₆ alkylcarbonyloxy group; nitro group; cyano group; formyl group; formamide group; amino group; C₁₋₆ alkylamino group; di-C₁₋₆ alkylamino group; C₁₋₆ alkylcarbonylamino group; C₁₋₆ alkylaminocarbonyl group; di-C₁₋₆ alkylaminocarbonyl group; C₁₋₆ alkylcarbonyl group; C₁₋₆ alkoxy carbonyl group; aminosulfonyl group; C₁₋₆ alkylsulfonyl group; carboxy group or sulfonyl group); - C₆₋₁₄ aryl group, C₂₋₉ heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R¹⁰ wherein R¹⁰ has the above-mentioned meaning);

- hydroxy group;

- C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom); or

- nitro group; cyano group; formyl group; formamide group; sulfonylamino group; sulfonyl group; amino group; C₁₋₆ alkylamino group; di-C₁₋₆ alkylamino group; C₁₋₆ alkylcarbonylamino group; C₁₋₆ alkylsulfonylamino group; aminocarbonyl group; C₁₋₆ alkylaminocarbonyl group; di-C₁₋₆ alkylaminocarbonyl group; C₁₋₆ alkylcarbonyl group; C₁₋₆ alkoxy carbonyl group; aminosulfonyl group; C₁₋₆ alkylsulfonyl group; carboxy group, C₆₋₁₄ arylcarbonyl group or C₂₋₉ heteroarylcarbonyl group (wherein each of the arylcarbonyl group or heteroarylcarbonyl group may be arbitrarily substituted with 1 to 3 R¹⁰ wherein R¹⁰ has the above-mentioned meaning), and

R⁸ is

- hydrogen atom,
- C₁₋₆ alkyl group (wherein the C₁₋₆ alkyl group may be arbitrarily substituted with halogen atom, hydroxy group, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), C₆₋₁₄ aryl group, C₂₋₉ heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R¹⁷ wherein R¹⁷ has the same meaning as R¹⁰), C₁₋₆ alkylcarbonyloxy group; nitro group; cyano group; formyl group; formamide group; amino group; C₁₋₆ alkylamino group; di-C₁₋₆ alkylamino group; C₁₋₆ alkylcarbonylamino group; C₁₋₆ alkylsulfonylamino group; aminocarbonyl group; C₁₋₆ alkylaminocarbonyl group; di-C₁₋₆ alkylaminocarbonyl group; C₁₋₆ alkylcarbonyl group; C₁₋₆ alkoxy carbonyl

group; aminosulfonyl group; C₁₋₆ alkylsulfonyl group; carboxy group or sulfonyl group);

- C₆₋₁₄ aryl group, C₂₋₉ heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R¹⁷ wherein R¹⁷ has the same meaning as R¹⁰);

- hydroxy group;

- C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), or

- nitro group; cyano group; formyl group; formamide group; sulfonylamino group; sulfonyl group; amino group; C₁₋₆ alkylamino group; di-C₁₋₆ alkylamino group; C₁₋₆ alkylcarbonylamino group; C₁₋₆ alkylsulfonylamino group; aminocarbonyl group; C₁₋₆ alkylaminocarbonyl group; di-C₁₋₆ alkylaminocarbonyl group; C₁₋₆ alkylcarbonyl group; C₁₋₆ alkoxycarbonyl group; aminosulfonyl group; C₁₋₆ alkylsulfonyl group; carboxy group, C₆₋₁₄ arylcarbonyl group or C₂₋₉ heteroarylcabonyl group (wherein each of the arylcarbonyl group or heteroarylcabonyl group may be arbitrarily substituted with 1 to 3 R¹⁷ wherein R¹⁷ has the same meaning as R¹⁰), or

R⁷ together with R⁸ may represent =O or =S, or

V is NR⁹ wherein R⁹ is hydrogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), hydroxy group, C₆₋₁₄ aryl group, C₂₋₉ heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R¹⁷ wherein R¹⁷ has the same meaning as R¹⁰), C₁₋₆ alkylaminocarbonyl group, di-C₁₋₆ alkylaminocarbonyl group, C₁₋₆ alkylcarbonyl group, C₃₋₈ cycloalkylcarbonyl group, C₁₋₆ alkoxycarbonyl group, C₁₋₆ alkylsulfonyl group, carboxy group, C₆₋₁₄ arylcarbonyl group or C₂₋₉ heteroarylcabonyl group), C₁₋₆ alkylaminocarbonyl group, di-C₁₋₆ alkylaminocarbonyl group, C₁₋₆ alkylcarbonyl group, C₃₋₈ cycloalkylcarbonyl group, C₁₋₆ alkoxycarbonyl group, C₁₋₆ alkylsulfonyl group, C₆₋₁₄ arylsulfonyl group, C₂₋₉ heteroarylsulfonyl group (wherein each of the arylsulfonyl group or heteroarylsulfonyl group may be arbitrarily substituted with 1 to 3 R¹⁷ wherein R¹⁷ has the same meaning as R¹⁰), carboxy group; C₆₋₁₄ arylcarbonyl group or C₂₋₉ heteroarylcabonyl group (wherein each of the arylcarbonyl group or heteroarylcabonyl group may be arbitrarily substituted with 1 to 3 R¹⁷ wherein R¹⁷ has the same meaning as R¹⁰); or

V is O, S; SO or SO₂;

R⁵ is hydrogen atom or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be

arbitrarily substituted with halogen atom), or hydroxy group); and

R⁶ is

- hydrogen atom,

- C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group),

- C₃₋₈ cycloalkyl group, C₃₋₈ cycloalkenyl group (wherein the cycloalkyl group or cycloalkenyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group),

- amino group, C₁₋₆ alkylamino group, di-C₁₋₆ alkylamino group, C₆₋₁₄ arylamino group, C₂₋₉ heteroaryl amino group (wherein each of the arylamino group or heteroaryl amino group may be arbitrarily substituted with 1 to 3 R¹⁸ wherein R¹⁸ has the same meaning as R¹⁰);

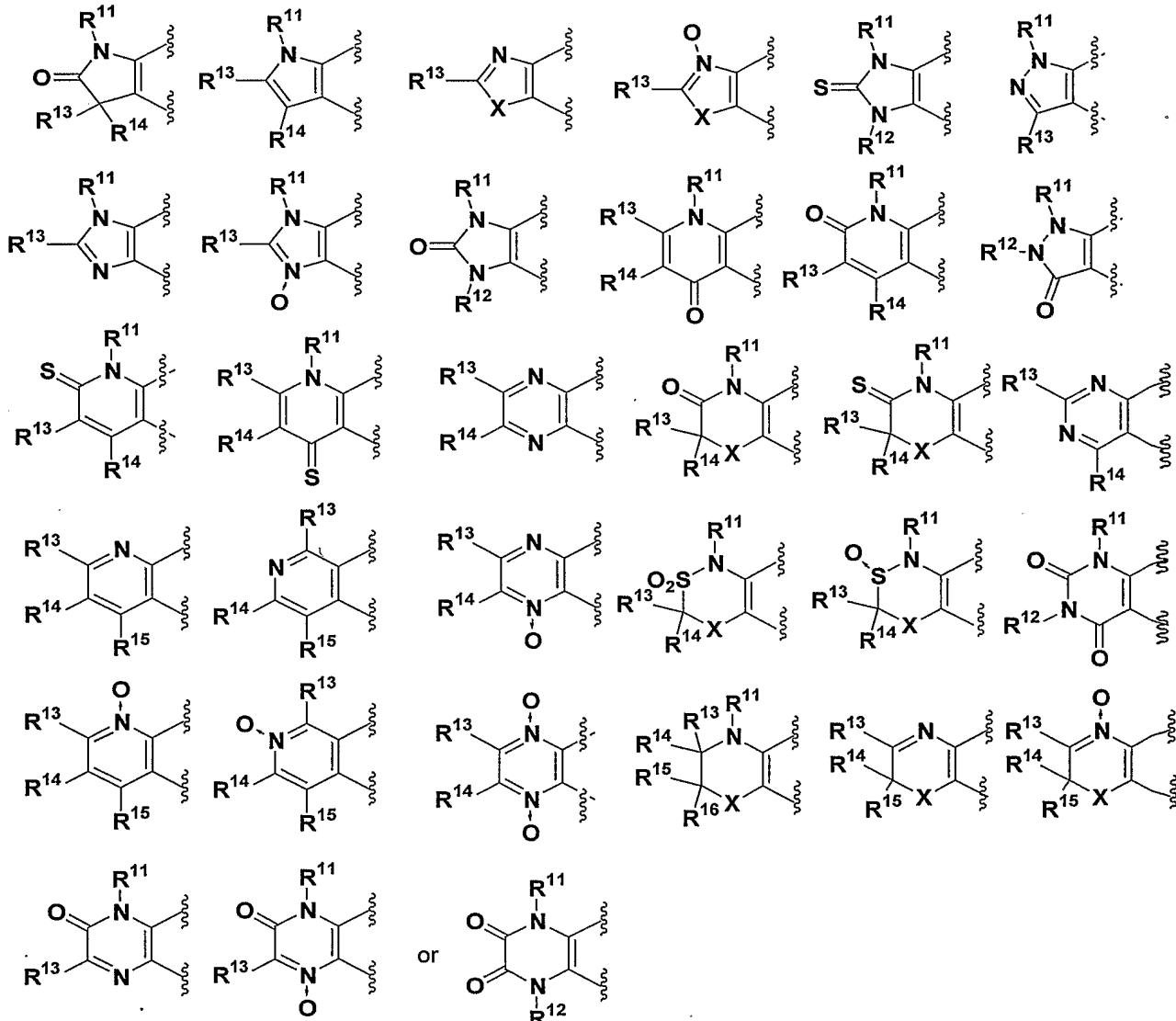
- C₆₋₁₄ aryl group, C₂₋₉ heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R¹⁸ wherein R¹⁸ has the same meaning as R¹⁰); or

- C₂₋₉ heterocyclyl group (wherein the heterocyclyl may be arbitrarily substituted with halogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), C₆₋₁₄ aryl group, C₂₋₉ heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R¹⁸ wherein R¹⁸ has the above-mentioned meaning), hydroxy group, nitro group, cyano group, formyl group, formamide group, amino group, C₁₋₆ alkylamino group, di-C₁₋₆ alkylamino group, C₁₋₆ alkylcarbonylamino group, C₁₋₆ alkylsulfonylamino group, aminocarbonyl group, C₁₋₆ alkylaminocarbonyl group, di-C₁₋₆ alkylamino carbonyl group, C₁₋₆ alkylcarbonyl group, C₁₋₆ alkoxycarbonyl group; aminosulfonyl group, C₁₋₆ alkylsulfonyl group, carboxy group or C₆₋₁₄ arylcarbonyl group);

A is 5-, 6- or 7-member ring fused with benzene ring (wherein the 5-, 6- or 7-member ring may be arbitrarily substituted with 1 to 6 R²¹ wherein R²¹ has the same meaning

as R¹⁰, and when a plurality of R²¹ are present, they may be identical or different from each other), as constituent atom of the ring, oxygen atom, nitrogen atom or sulfur atom may be contained in the number of 1 to 3 alone or in a combination thereof, the number of unsaturated bond in the ring is 1, 2 or 3 including an unsaturated bond of the benzene ring to be fused, carbon atoms constituting the ring may be carbonyl or thiocarbonyl.

2. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 1, wherein A is



wherein R¹¹ and R¹² are independently of each other hydrogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy

group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), hydroxy group, C₆₋₁₄ aryl group, C₂₋₉ heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R¹⁹ wherein R¹⁹ has the same meaning as R¹⁰), C₁₋₆ alkylaminocarbonyl group, di-C₁₋₆ alkylaminocarbonyl group, C₁₋₆ alkylcarbonyl group, C₃₋₈ cycloalkylcarbonyl group, C₁₋₆ alkoxy carbonyl group, C₁₋₆ alkylsulfonyl group, carboxy group, C₆₋₁₄ arylcarbonyl group or C₂₋₉ heteroarylcarbonyl group), C₆₋₁₄ aryl group, C₂₋₉ heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R¹⁹ wherein R¹⁹ has the same meaning as R¹⁰), C₁₋₆ alkylaminocarbonyl group, di-C₁₋₆ alkylaminocarbonyl group, C₁₋₆ alkylcarbonyl group, C₃₋₈ cycloalkylcarbonyl group, C₁₋₆ alkoxy carbonyl group, C₁₋₆ alkylsulfonyl group, C₆₋₁₄ arylsulfonyl group, C₂₋₉ heteroarylsulfonyl group (wherein each of the arylsulfonyl group or heteroarylsulfonyl group may be arbitrarily substituted with 1 to 3 R¹⁹ wherein R¹⁹ has the same meaning as R¹⁰), carboxy group; C₆₋₁₄ arylcarbonyl group or C₂₋₉ heteroarylcarbonyl group (wherein each of the arylcarbonyl group or heteroarylcarbonyl group may be arbitrarily substituted with 1 to 3 R¹⁹ wherein R¹⁹ has the same meaning as R¹⁰), R¹³, R¹⁴, R¹⁵ and R¹⁶ are independently of each other hydrogen atom, halogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, hydroxy group, C₆₋₁₄ aryl group, C₂₋₉ heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R²⁰ wherein R²⁰ has the same meaning as R¹⁰), C₁₋₆ alkylaminocarbonyl group, di-C₁₋₆ alkylaminocarbonyl group, C₁₋₆ alkylcarbonyl group, C₃₋₈ cycloalkylcarbonyl group, C₁₋₆ alkoxy carbonyl group, C₁₋₆ alkylsulfonyl group, carboxy group, C₆₋₁₄ arylcarbonyl group or C₂₋₉ heteroarylcarbonyl group), C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), carboxy group, amino group, hydroxy group, C₆₋₁₄ aryl group or C₂₋₉ heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R²⁰ wherein R²⁰ has the same meaning as R¹⁰), C₁₋₆ thioalkoxy group (wherein the thioalkoxy group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), carboxy group, hydroxy group, C₆₋₁₄ aryl group or C₂₋₉ heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R²⁰ wherein R²⁰ has the same meaning as R¹⁰)), hydroxy group, C₆₋₁₄ aryl group, C₂₋₉ heteroaryl

group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R²⁰ wherein R²⁰ has the same meaning as R¹⁰), C₁₋₆ alkylcarbonyloxy group, nitro group, cyano group, formyl group, formamide group, amino group, sulfonyl group, C₁₋₆ alkylamino group, di-C₁₋₆ alkylamino group, C₆₋₁₄ arylamino group, C₂₋₉ heteroaryl amino group (wherein each of the arylamino group or heteroaryl amino group may be arbitrarily substituted with 1 to 3 R²⁰ wherein R²⁰ has the same meaning as R¹⁰), C₁₋₆ alkylcarbonylamino group, C₁₋₆ alkylsulfonylamino group, aminocarbonyl group, C₁₋₆ alkylaminocarbonyl group, di-C₁₋₆ alkylaminocarbonyl group, C₁₋₆ alkylcarbonyl group, C₆₋₁₄ arylcarbonyl group, C₂₋₉ heteroarylcarbonyl group (wherein each of the arylcarbonyl group or heteroarylcarbonyl group may be arbitrarily substituted with 1 to 3 R²⁰ wherein R²⁰ has the same meaning as R¹⁰), C₁₋₆ alkoxy carbonyl group, aminosulfonyl group, C₁₋₆ alkylsulfonyl group, C₆₋₁₄ arylsulfonyl group, C₂₋₉ heteroarylsulfonyl group (wherein each of the arylsulfonyl group or heteroarylsulfonyl group may be arbitrarily substituted with 1 to 3 R²⁰ wherein R²⁰ has the same meaning as R¹⁰), carboxy group, sulfonyl group or C₂₋₉ heterocyclyl group (wherein the heterocyclyl may be arbitrarily substituted with halogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), C₆₋₁₄ aryl group, C₂₋₉ heteroaryl group (wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R²⁰ wherein R²⁰ has the above-mentioned meaning), hydroxy group, nitro group, cyano group, formyl group, formamide group, amino group, C₁₋₆ alkylamino group, di-C₁₋₆ alkylamino group, C₁₋₆ alkylcarbonylamino group, C₁₋₆ alkylsulfonylamino group, aminocarbonyl group, C₁₋₆ alkylaminocarbonyl group, di-C₁₋₆ alkylaminocarbonyl group, C₁₋₆ alkylcarbonyl group, C₁₋₆ alkoxy carbonyl group, aminosulfonyl group, C₁₋₆ alkylsulfonyl group, carboxy group or C₆₋₁₄ arylcarbonyl group), X is O, S, SO or SO₂.

3. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 2, wherein R¹ and R² are methyl group, R³ is hydroxy group, and R⁴ is hydrogen atom.

4. The benzopyran derivative or pharmaceutically acceptable salt thereof

according to claim 3, wherein R⁵ is hydrogen atom, m is an integer of 0 to 3 and n is an integer of 0 to 2.

5. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 4, wherein V is a single bond.

6. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 5, wherein m is an integer of 1 to 3, n is 0, and R⁶ is C₆₋₁₄ aryl group wherein the aryl group may be arbitrarily substituted with 1 to 3 R¹⁸ wherein R¹⁸ has the same meaning as R¹⁰.

7. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 6, wherein m is 2.

8. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 7, wherein R⁶ is C₆₋₁₄ aryl wherein the aryl group may be arbitrarily substituted with 1 to 3 halogen atom or amino group, and when a plurality of substituents are present, they may be identical or different from each other.

9. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 5, wherein m is an integer of 1 to 3, n is 0, and R⁶ is C₂₋₉ heteroaryl group wherein the heteroaryl group may be arbitrarily substituted with 1 to 3 R¹⁸ wherein R¹⁸ has the same meaning as R¹⁰.

10. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 9, wherein m is 2.

11. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 10, wherein R⁶ is 2-pyridyl group, 3-pyridyl group or 4-pyridyl group.

12. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 5, wherein m is an integer of 1 to 3, n is 0, and R⁶ is C₂₋₄ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen

atom), amino group, carboxy group or hydroxy group), C₃₋₈ cycloalkyl group, C₃₋₈ cycloalkenyl group (wherein the cycloalkyl group or cycloalkenyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), or C₂₋₉ heterocyclyl group (wherein the heterocyclyl may be arbitrarily substituted with halogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), hydroxy group or amino group).

13. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 12, wherein m is 2.

14. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 13, wherein R⁶ is n-propyl group, i-propyl group, c-pentyl group, c-hexyl group, 1-c-pentenyl group, 2-c-pentenyl group, 3-c-pentenyl group, 1-c-hexenyl group, 2-c-hexenyl group or 3-c-hexenyl group.

15. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 4, wherein V is CR⁷R⁸.

16. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 15, wherein R⁷ is hydroxy group, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), C₁₋₆ alkylamino group, di-C₁₋₆ alkylamino group, or carboxy group, and R⁸ is hydrogen atom or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), or R⁷ and R⁸ together are =O or =S.

17. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 16, wherein R⁷ is hydroxy group, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, hydroxy group or carboxy group) or carboxy group, and R⁸ is hydrogen atom or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, hydroxy group or carboxy group), or R⁷ and R⁸ together are =O.
18. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 17, wherein R⁷ is hydroxy group, and R⁸ is hydrogen atom.
19. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 15, wherein m is an integer of 1 to 2, n is 0, and R⁶ is C₆₋₁₄ aryl group or C₂₋₉ heteroaryl group wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R¹⁸ wherein R¹⁸ has the same meaning as R¹⁰.
20. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 19, wherein R⁷ is hydroxy group, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), C₁₋₆ alkylamino group, di-C₁₋₆ alkylamino group, or carboxy group, and R⁸ is hydrogen atom or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), or R⁷ and R⁸ together are =O or =S.
21. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 20, wherein R⁷ is hydroxy group, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, hydroxy group or carboxy group) or carboxy group, and R⁸ is hydrogen atom or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, hydroxy group or carboxy group), or R⁷ and R⁸ together are =O.
22. The benzopyran derivative or pharmaceutically acceptable salt thereof

according to claim 21, wherein R⁷ is hydroxy group, and R⁸ is hydrogen atom.

23. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 22, wherein m is 1, n is 0, and R⁶ is C₆₋₁₄ aryl group wherein the aryl group may be arbitrarily substituted with 1 to 3 halogen atom or amino group, when and when a plurality of substituents are present, they may be identical or different from each other.

24. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 15, wherein m is an integer of 1 to 2, n is 0, and R⁶ is C₁₋₄ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C₃₋₈ cycloalkyl group, C₃₋₈ cycloalkenyl group (wherein the cycloalkyl group or cycloalkenyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino, carboxy group or hydroxy group), or C₂₋₉ heterocyclyl group (wherein the heterocyclyl may be arbitrarily substituted with halogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group).

25. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 24, wherein R⁷ is hydroxy group, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein C₁₋₆ alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C₁₋₆ alkoxy group (wherein C₁₋₆ alkoxy group may be arbitrarily substituted with halogen atom), C₁₋₆ alkylamino group, di-C₁₋₆ alkylamino group, or carboxy group, and R⁸ is hydrogen atom or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein C₁₋₆ alkoxy group may be arbitrarily substituted with halogen atom)),

amino group, carboxy group or hydroxy group), or R⁷ and R⁸ together are =O or =S.

26. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 25, wherein R⁷ is hydroxy group, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, hydroxy group or carboxy group) or carboxy group, and R⁸ is hydrogen atom or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, hydroxy group or carboxy group), or R⁷ and R⁸ together are =O.

27. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 26, wherein R⁷ is hydroxy group, and R⁸ is hydrogen atom.

28. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 27, wherein R⁶ is n-propyl group, i-propyl group, c-pentyl group, c-hexyl group, 1-c-pentenyl group, 2-c-pentenyl group, 3-c-pentenyl group, 1-c-hexenyl group, 2-c-hexenyl group or 3-c-hexenyl group.

29. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 15, wherein R⁷ and R⁸ together are =O or =S, and R⁶ is amino group, C₁₋₆ alkylamino group, di-C₁₋₆ alkylamino group, C₆₋₁₄ arylamino group, C₂₋₉ heteroaryl amino group (wherein each of the arylamino group or heteroaryl amino group may be arbitrarily substituted with 1 to 3 R¹⁸ wherein R¹⁸ has the same meaning as R¹⁰), or C₂₋₉ heterocycl group (wherein the heterocycl may be arbitrarily substituted with halogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group).

30. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 4, wherein V is NR⁹.

31. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 30, wherein m is an integer of 1 to 3, n is 0, and R⁶ is C₆₋₁₄ aryl

group or C₂₋₉ heteroaryl group wherein each of the aryl group or heteroaryl group may be arbitrarily substituted with 1 to 3 R¹⁸ wherein R¹⁸ has the same meaning as R¹⁰.

32. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 31, wherein m is 2.

33. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 30, wherein m is an integer of 1 to 3, n is 0 and R⁶ is hydrogen atom, C₂₋₄ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C₃₋₈ cycloalkyl group, C₃₋₈ cycloalkenyl group (wherein the cycloalkyl group or cycloalkenyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), or C₂₋₉ heterocyclyl group (wherein the heterocyclyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group), C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group, carboxy group or hydroxy group).

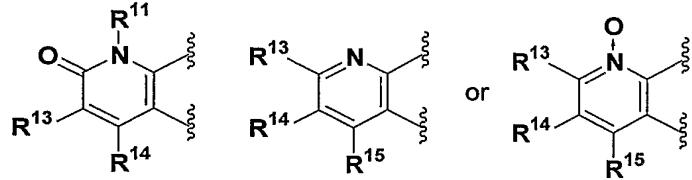
34. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 33, wherein m is 2.

35. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 3, which is the compound of formula (I).

36. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 3, which is the compound of formula (II).

37. The benzopyran derivative or pharmaceutically acceptable salt thereof

according to claim 8, 11, 14, 23, 28 or 35, wherein the ring structure of A is



wherein R¹¹, R¹³, R¹⁴ and R¹⁵ have the above-mentioned meanings.

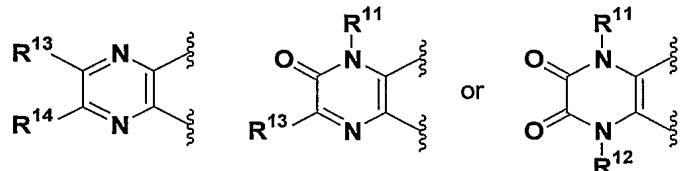
38. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 37, wherein R¹¹ is hydrogen atom or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group or hydroxy group), and R¹³, R¹⁴ and R¹⁵ are independently of each other hydrogen atom, halogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom) or hydroxy group), C₃₋₈ cycloalkyl group (wherein the cycloalkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group or hydroxy group), C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom, amino group, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom) or hydroxy group), C₁₋₆ alkylcarbonyl group, aminocarbonyl group, amino group, carboxy group or cyano group.

39. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 38, wherein R¹¹ is hydrogen atom or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group), and R¹³, R¹⁴ and R¹⁵ are independently of each other hydrogen atom, halogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group), carboxy group, amino group or cyano group.

40. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 39, wherein R¹¹ is hydrogen atom, R¹³ is hydrogen atom, halogen atom, carboxy group or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group), R¹⁴ is hydrogen atom,

and R¹⁵ is hydrogen atom, halogen atom or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group).

41. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 8, 11, 14, 23, 28 or 35, wherein the ring structure of A is



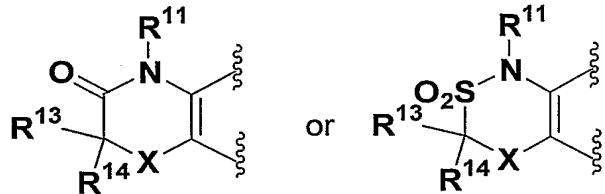
wherein R¹¹, R¹², R¹³ and R¹⁴ have the above-mentioned meanings.

42. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 41, wherein R¹¹ and R¹² are independently of each other hydrogen atom or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group or hydroxy group), and R¹³ and R¹⁴ are independently of each other hydrogen atom, halogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom) or hydroxy group), C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom, amino group, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), or hydroxy group), C₁₋₆ alkylcarbonyl group, amino group or cyano group.

43. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 42, wherein R¹¹ and R¹² are independently of each other hydrogen atom or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group), and R¹³ and R¹⁴ are independently of each other hydrogen atom, halogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group), amino group or cyano group.

44. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 43, wherein R¹¹, R¹², R¹³ and R¹⁴ are hydrogen atom.

45. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 8, 11, 14, 23, 28 or 35, wherein the ring structure of A is



wherein R¹¹, R¹³ and R¹⁴ have the above-mentioned meanings.

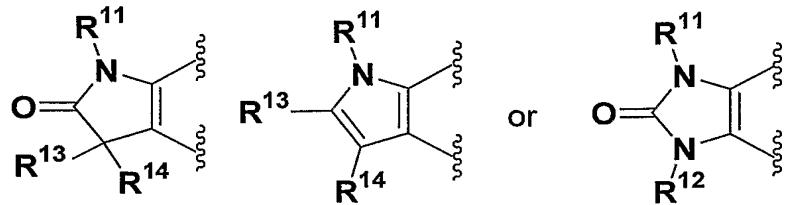
46. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 45, wherein R¹¹ is hydrogen atom or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), amino group or hydroxy group), R¹³ and R¹⁴ are independently of each other hydrogen atom, halogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom) or hydroxy group), C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom, amino group, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), or hydroxy group), amino group or cyano group, and X is O, S, SO or SO₂.

47. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 46, wherein R¹¹ is hydrogen atom or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group), R¹³ and R¹⁴ are independently of each other hydrogen atom, halogen atom or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group), and X is O.

48. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 47, wherein R¹¹ is hydrogen atom or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group), R¹³ and R¹⁴ are hydrogen atom, and X is O.

49. The benzopyran derivative or pharmaceutically acceptable salt thereof

according to claim 8, 11, 14, 23, 28 or 35, wherein the ring structure of A is



wherein R¹¹, R¹², R¹³ and R¹⁴ have the above-mentioned meanings.

50. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 49, wherein R¹¹ and R¹² are independently of each other hydrogen atom or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), C₆₋₁₄ aryl group (wherein the aryl group may be arbitrarily substituted with halogen atom, hydroxy group or C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom)), amino group or hydroxy group), and R¹³ and R¹⁴ are independently of each other hydrogen atom, halogen atom, C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom) or hydroxy group), C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom, amino group, C₁₋₆ alkoxy group (wherein the alkoxy group may be arbitrarily substituted with halogen atom), or hydroxy group), amino group or cyano group.

51. The benzopyran derivative or pharmaceutically acceptable salt thereof according to claim 50, wherein R¹¹ and R¹² are independently of each other hydrogen atom or C₁₋₆ alkyl group (wherein the alkyl group may be arbitrarily substituted with halogen atom, amino group or hydroxy group), and R¹³ and R¹⁴ are hydrogen atom.

52. A benzopyran derivative or pharmaceutically acceptable salt thereof which is 2,2,7,9-tetramethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol, 2,2,7-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol, 3-hydroxy-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2H-pyrano[2,3-g]quinoline-7-carbonitrile, 3-hydroxy-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2H-pyrano[2,3-g]quinoline-7-carboxamide,

{3-hydroxy-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-7-yl}ethanone,
3,3-dimethyl-1-[(2-phenylethyl)amino]-2,3-dihydro-1*H*-pyrano[3,2-f]quinolin-2-ol,
7-hydroxymethyl-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
3-hydroxy-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoline-7-carboxylic acid,
4-(benzylamino)-7-chloro-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
4-{{(1,3-benzodioxol-5-yl)methyl}amino}-7-chloro-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-[(3-phenylpropyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{{2-(4-fluorophenyl)ethyl}amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{{2-(2-fluorophenyl)ethyl}amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{{2-(4-chlorophenyl)ethyl}amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
4-{{2-(4-aminophenyl)ethyl}amino}-7-chloro-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[(2-hydroxy-2-phenylethyl)amino]-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-[(2-phenylbutyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
4-{{2-(1,3-benzodioxol-5-yl)ethyl}amino}-7-chloro-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-{{2-(1-piperidinyl)ethyl}amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-{{2-(1-methyl-2-pyrrolidinyl)ethyl}amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
4-[(2-anilinoethyl)amino]-7-chloro-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{{2-[ethyl(3-methylphenyl)amino]ethyl}amino}-2,2,9-trimethyl-3,4-dihydro-2

H-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{{(1-ethyl-(R)-2-pyrrolidinyl)methyl}amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[(2,2-diethoxyethyl)amino]-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-{{2-(3-thienyl)ethyl}amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-[2-(1-pyrazolylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-{{2-(4-methylpyrazol-1-yl)ethyl}amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{{2-(4-chloropyrazol-1-yl)ethyl}amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-{{2-(2-pyridyl)ethyl}amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-{{2-(3-pyridyl)ethyl}amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-{{2-(4-pyridyl)ethyl}amino}-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-ethylamino-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-isobutylamino-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[(cyclopropylmethyl)amino]-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-isopentylamino-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[(2-cyclopentylethyl)amino]-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{{2-(1-cyclopentenyl)ethyl}amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-[(5-methylhexan-2-yl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-pentylamino-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[(2-cyclohexylethyl)amino]-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{{2-(tetrahydropyran-4-yl)ethyl}amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,

7-chloro-2,2,9-trimethyl-4-[{2-(4-thianyl)ethyl}amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,

7-chloro-4-({[6-(4-chlorophenyl)-3-pyridinyl]methyl}amino)-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,

4-[(2-benzofurylmethyl)amino]-7-chloro-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,

7-chloro-4-[(2-hydroxypentyl)amino]-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,

2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,

4-{{2-(2-fluorophenyl)ethyl}amino}-2,2-dimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,

4-{{2-(4-fluorophenyl)ethyl}amino}-2,2-dimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,

4-[(2-hydroxy-2-phenylethyl)amino]-2,2-dimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,

2,2-dimethyl-4-pentylamino-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,

2,2,7,8-tetramethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,

7,8-diethyl-2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,

2,2,8-trimethyl-7-phenyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,

2,2,7-trimethyl-8-phenyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,

2,2,8-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,

4-[(2-cyclohexylethyl)amino]-2,2-dimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinoxalin-3-ol,

3-hydroxy-2,2-dimethyl-4-[(2-phenylethyl)amino]-2,3,4,6-tetrahydro-pyrano[2,3-f]benzimidazol-7-one,

7-hydroxy-6,6-dimethyl-8-[(2-phenylethyl)amino]-4,6,7,8-tetrahydro-1,5-dioxa-4-aza-anthracen-3-on,

7-hydroxy-4,6,6-trimethyl-8-[(2-phenylethyl)amino]-4,6,7,8-tetrahydro-1,5-dioxa-4-aza-anthracen-3-on,

6,6-dimethyl-8-[(2-phenylethyl)amino]-2,3,4,6,7,8-hexahydro-1,5-dioxa-4-aza-anthracyclen-7-ol,

7-hydroxy-6,6-dimethyl-8-[(2-phenylethyl)amino]-1,6,7,8-tetrahydro-4,5-dioxa-1-aza-anthracen-3-on,

nthracen-2-on,
6,6-dimethyl-8-[(2-phenylethyl)amino]-1,2,3,6,7,8-hexahydro-4,5-dioxa-1-aza-anthracen-7-ol,
9-hydroxymethyl-2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoline-3,7-diol,
7-aminomethyl-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-6*λ*5-oxy-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{[2-(4-fluorophenyl)ethyl]amino}-2,2,9-trimethyl-6*λ*5-oxy-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-6*λ*5-oxy-4-pentylamino-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
4-{[2-(4-fluorophenyl)ethyl]amino}-7-hydroxymethyl-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol or
2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol.

53. A benzopyran derivative or pharmaceutically acceptable salt thereof which is
2,2,7-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
3,3-dimethyl-1-[(2-phenylethyl)amino]-2,3-dihydro-1*H*-pyrano[3,2-f]quinolin-2-ol,
7-hydroxymethyl-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{[2-(4-fluorophenyl)ethyl]amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{[2-(2-fluorophenyl)ethyl]amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-{[2-(4-chlorophenyl)ethyl]amino}-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol,
3-hydroxy-2,2,9-trimethyl-4-[2-(phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoline-7-carboxylic acid,
4-{[2-(4-aminophenyl)ethyl]amino}-7-chloro-2,2,9-trimethyl-3,4-dihydro-2*H*-pyrano[2,3-

g]quinolin-3-ol,
7-chloro-4-[(2-hydroxy-2-phenylethyl)amino]-2,2,9-trimethyl-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-[[2-(1-piperidinyl)ethyl]amino]-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[[2-(4-chloropyrazol-1-yl)ethyl]amino]-2,2,9-trimethyl-3,4-dihydro-2H-pyran o[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-[[2-(2-pyridyl)ethyl]amino]-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-[[2-(3-pyridyl)ethyl]amino]-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-[[2-(4-pyridyl)ethyl]amino]-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-isopentylamino-2,2,9-trimethyl-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[(2-cyclopentylethyl)amino]-2,2,9-trimethyl-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[[2-(1-cyclopentenyl)ethyl]amino]-2,2,9-trimethyl-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-4-pentylamino-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[(2-cyclohexylethyl)amino]-2,2,9-trimethyl-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol,
7-chloro-4-[(2-hydroxypentyl)amino]-2,2,9-trimethyl-3,4-dihydro-2H-pyrano[2,3-g]quinolin-3-ol,
2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol,
4-[[2-(2-fluorophenyl)ethyl]amino]-2,2-dimethyl-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol,
4-[[2-(4-fluorophenyl)ethyl]amino]-2,2-dimethyl-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol,
4-[(2-hydroxy-2-phenylethyl)amino]-2,2-dimethyl-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol,
2,2-dimethyl-4-pentylamino-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol,
4-[(2-cyclohexylethyl)amino]-2,2-dimethyl-3,4-dihydro-2H-pyrano[2,3-g]quinoxalin-3-ol,
7-hydroxy-6,6-dimethyl-8-[(2-phenylethyl)amino]-4,6,7,8-tetrahydro-1,5-dioxa-4-aza-a nthracen-3-on,
7-hydroxy-4,6,6-trimethyl-8-[(2-phenylethyl)amino]-4,6,7,8-tetrahydro-1,5-dioxa-4-aza-

anthracen-3-one,
7-hydroxy-6,6-dimethyl-8-[(2-phenylethyl)amino]-7,8-dihydro-1*H*,6*H*-4,5-dioxa-1-aza-a
nthracen-2-one,
9-hydroxymethyl-2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]q
uinolin-3-ol,
2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinoline-3,7-dio
l,
7-aminomethyl-2,2,9-trimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]q
uinolin-3-ol,
7-chloro-2,2,9-trimethyl-6*λ*5-oxy-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-
g]quinolin-3-ol,
7-chloro-4-{[2-(4-fluorophenyl)ethyl]amino}-2,2,9-trimethyl-6*λ*5-oxy-3,4-dihydro-2*H*-pyr
ano[2,3-g]quinolin-3-ol,
7-chloro-2,2,9-trimethyl-6*λ*5-oxy-4-pentylamino-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-
3-ol,
4-{[2-(4-fluorophenyl)ethyl]amino}-7-hydroxymethyl-2,2,9-trimethyl-3,4-dihydro-2*H*-pyr
ano[2,3-g]quinolin-3-ol or
2,2-dimethyl-4-[(2-phenylethyl)amino]-3,4-dihydro-2*H*-pyrano[2,3-g]quinolin-3-ol.

54. A pharmaceutical characterized by comprising the benzopyran derivative or pharmaceutically acceptable salt thereof according to any one of claims 1 to 53 as an active ingredient.

55. A pharmaceutical for treating arrhythmia characterized by comprising the benzopyran derivative or pharmaceutically acceptable salt thereof according to any one of claims 1 to 53 as an active ingredient.